

IN THE CLAIMS:

Please amend the claims as shown in the appended copy of the claims as amended.

Claim 3, change "25 uR" to 23μR.

Claim 6, change "Claim 1" to Claim 5.

Claim 10, change "test etalons" to test etalon.

1. (Original) A method for testing etalons comprising the steps of:
 - A. mounting an etalon defining a test etalon on a stage,
 - B. illuminating said test etalon with a collimated laser beam,
 - C. detecting interference fringes in light reflected from the test etalon at a plurality of etalon rotation positions sufficient to include at least one extinction cycle,
 - D. analyzing selected interference patterns to estimate uniformity of etalon spacing.
2. (Original) A method as in Claim 1 wherein said collimated beam is configured to illuminate said test etalon at angles in the range of about 3.5 degrees.
3. (Currently Amended) A method as in Claim 1 wherein said collimated beam has a spherical wavefront error of less than ~~23uR~~ 23μR.
4. (Original) A method as in Claim 1 wherein said collimated beam has a wavefront error of less than $\lambda/10$.
5. (Original) A method as in Claim 1 wherein said fringes are detected by imaging fringes on a screen.
6. (Currently Amended) A method as in Claim [4] [5] wherein images on said screen are detected with a CCD camera.

7. (Original) A method as in Claim 1 wherein said fringes are imaged directly on pixels of a CCD camera.
8. (Original) A method as in Claim 1 wherein said test etalon is stepped through a plurality of angles and interference patterns are recorded at each of said plurality of angles using a controller comprising a digital processor programmed to keep track of pattern data and rotation angles.
9. (Original) A method as in Claim 8 wherein said etalon is stepped through at least two extension cycles.
10. (Currently Amended) A system for testing etalons comprising:
 - A. a rotational stage,
 - B. a mounting means for mounting a test etalon on said rotational stage,
 - C. a laser light source for producing a coherent light source,
 - D. collimating optics for collimating said light source to produce a collimated beam for illuminating said test etalon,
 - E. a detector for detecting interference patterns in light reflected from said test ~~etalons~~ etalon.
11. (Original) A system as in Claim 10 and further comprising a control means to provide precision rotation of said test etalon on said rotation stage and for recording said interference patterns at each of a plurality of rotation positions.
12. (Original) A system as in Claim 11 wherein said control means comprises a digital processor for analyzing said interference patterns to indicate extent of uniformity of etalon spacing.